

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

[The Marine Division, I. R. TANNERHILL, in Charge]

NORTH ATLANTIC OCEAN, JULY 1939

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Atmospheric pressure.—During July pressure averaged above normal over northwestern and north-central and over much of the southeastern portions of the North Atlantic; but it averaged below normal over the southwestern and south-central areas, and especially also over waters near the British Isles, where the deficiency at Valencia, Ireland, was quite large for the season.

This was the first month since January in which the pressure exceeded normal over waters around southern Greenland, and likewise in which the pressure was appreciably lower than normal near the southeastern United States and the northern West Indies. It was the first since February in which the vicinity of the British Isles had pressure less than normal.

The extremes of pressure noted in available vessel reports were 1,036.0 and 990.9 millibars (30.59 and 29.26 inches, respectively). The higher reading was noted by an unidentified vessel during the forenoon of the 2d nearly 900 miles west of Horta, Azores Islands. From the 19th to 22d pressure again was comparatively high over and to northwestward and westward of the Azores. The low mark was recorded on the Dutch steamship *Colytto*, just before noon of the 14th, when the vessel was about 130 miles to southward of the southern tip of Ireland.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, July 1939

Station	Average pressure	Departure	Highest	Date	Lowest	Date
	Millibars	Millibars	Millibars		Millibars	
Julianehaab, Greenland	1,013.1	+4.0	1,020	12	998	31
Reykjavik, Iceland	1,012.6	+2.1	1,021	15	999	22
Lerwick, Shetland Islands	1,007.1	-2.0	1,019	4	993	17
Valencia, Ireland	1,010.5	-5.3	1,028	10	998	14
Lisbon, Portugal	1,017.4	+8	1,022	1, 9, 22, 31	1,010	3
Madeira	1,019.5	+1.9	1,028	22	1,016	27
Horta, Azores	1,024.2	+9	1,032	22	1,015	3
Belle Isle, Newfoundland ¹	1,014.2	+2.0	1,029	20	1,002	9
Halifax, Nova Scotia	1,015.8	+1.6	1,023	22, 28, 29	1,005	8
Nantucket	1,015.1	-1	1,026	21	1,005	15
Hatteras	1,016.0	-3	1,022	3	1,007	15
Bermuda	1,020.1	-1.9	1,024	7	1,015	14
Turks Island	1,017.6	-7	1,019	1-3, 11, 21, 22, 26	1,015	5-7, 28
Key West	1,015.9	-1.0	1,020	31	1,012	8
New Orleans	1,015.8	-1	1,021	26	1,008	9

¹ For 26 days.

NOTE.—All data based on a. m. observations only, with departures compiled from best available normals related to time of observation, except Hatteras, Key West, Nantucket, and New Orleans, which are 24-hour corrected means.

Cyclones and gales of the main North Atlantic.—The month was comparatively uneventful, even for summer. Two vessels reported strong gales (force 9), when near southern Ireland, the dates being not far from the middle

of the month. Each of these gales was connected with the persistent area of low pressure which remained in the region of the British Isles from the 12th to the 20th, varying in strength from day to day.

Over waters not far to the eastward of the United States coast fresh gales were occasionally encountered, especially about the 9th and 10th and about the 20th and 21st.

Disturbance over Gulf of Mexico.—While one instance of a force 7 wind in the Caribbean has come to notice (see report of the steamship *American Press* in the accompanying table), no cyclonic circulation over those waters seems to have occurred at any time during the month. In the Gulf of Mexico, however, there was one area of low pressure with well-formed circulation.

On the morning of the 7th this Gulf disturbance was definitely indicated, the center being 200 miles or slightly less to westward or west-southwestward of Tampa. Without attaining more than slight strength, the disturbance traveled westward, rather rapidly till the 9th, then more slowly, till it passed inland near Corpus Christi, Tex., during the night of the 11th-12th. There seems to have been no wind force as high as 8 connected with this disturbance at any stage of its life. The only report by mail of force 7 (American steamship *Comayagua*) is shown in the table, likewise the report of the American motorship *Rhode Island*, which noted the lowest pressure connected with the disturbance, 1,006.4 millibars (29.72 inches).

Fog.—Fog continued to occur frequently over many areas to northward of the 40th parallel, while near New Jersey, Delaware Bay, and the Chesapeake capes there was very much less than during June. Compared with the average July situation, the foggiest of the current July was somewhat greater than usual over the southern Grand Banks, but less than usual over waters close to Newfoundland, also near Ireland.

For the southern Grand Banks area there were two adjoining 5° squares, each showing 19 days of fog. These lie between 40° and 45° N., 45° and 55° W. There were but very few days before the 17th when fog did not occur in that area.

Only one other North Atlantic 5° square even closely approached this count of 19 days, and that was the square close to western Nova Scotia and eastern New England, 40° to 45° N., 65° to 70° W., where 20 days were foggy. Here the final decade of the month had the greater number of foggy days. Along and near the Massachusetts coast fog was particularly dense about the 23d, but reports at hand show no very serious accidents resulting.

The leading square of the eastern half of the North Atlantic, as far as available reports show, was that from 45° to 50° N., 20° to 25° W., with a count of 10 days. Over this and nearby areas the week from 20th to 26th was the foggiest part of the month.